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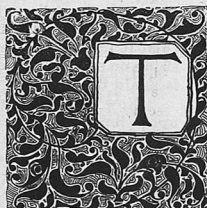
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## JAPANESE WALL-PAPER.

BY LAURA B. STARR.



THE fashion of using paper hangings on the wall came to Japan from China, by way of Corea, through which channel Chinese civilization has filtered through into the Island Empire for ages. With this art, as with every other, the Nipponese soon made themselves perfectly familiar, adopting, adapting and improving, marking it indelibly with the stamp of their own individuality.

One Tsai-lun, a Chinese, is credited with the invention of the art of papermaking in the year 105 A. D., and history tells it was brought to Japan about five hundred years later. Thus it will be seen Chinese and Japanese civilization have been accustomed to the use of paper products from the earliest ages.

The manifold uses of paper in Japan is a continual source of surprise to the foreigner who is in the habit of using other materials for at least half the purposes to which the Japanese put paper.

The styles and designs of wall-paper in Japan were practically the same for centuries. Thunberg and Kaempfer both speak of a design which showed square of gold and silver, of various sizes, flecked upon a ground of cream, threaded with hair lines of brown or gray of a delicate shade. This design is shown in all the paper stores to-day.

Japanese wall-paper proper, such as is designed for home consumption, is made in sheet sizes, varying from 10 x 15 to 15 x 36 inches, but nearly all the manufacturers will make it any length desired. The finished paper is brought to market in its natural condition, or cut and patterned and tied up in square packages.

Rein says: "Papermaking was and is still, with the exception of a few modern factories, a domestic industry in the true sense of the word, usually consisting of one or two scoop vats in a house, but found in hundreds of places. Papermaking is often performed by simple peasants, who let it rest for months, when in summer the work in the fields claims all their labor."

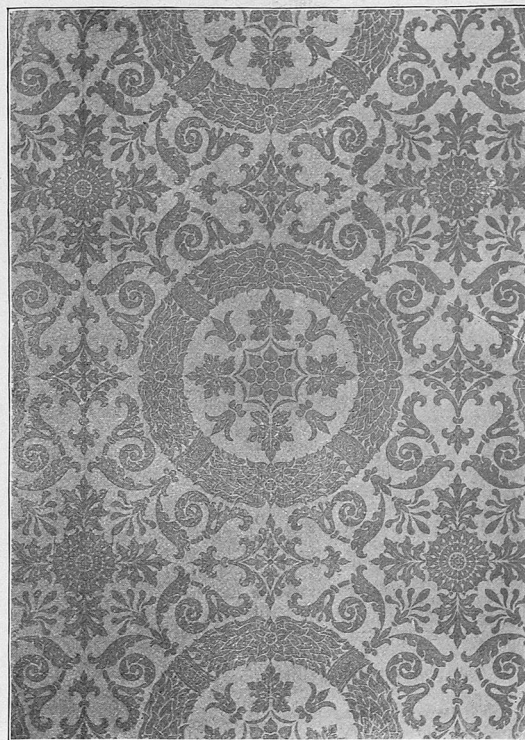
This is as true now as it was years ago when Rein was making his investigations in Japan. While making the trip from Kobe to Arima, a mountain village famous for its basket-work, we passed numbers of vats and frames along the river, which the coolies told us were "papermaking."

Dresser gives such a comprehensive description of one of these small manufactories that I cannot forbear quoting it in full.

"There is but one vat, and that no larger than an ordinary washtub, one hand frame on which the paper is made, and this only 17 inches by 12, while one woman and a boy constitute the entire staff of the establishment.

"The frame which the woman uses has a margin of wood, while a layer of bamboo threads, about as thick as the shank of an ordinary pin, covered by a sheet of hard silk, forms the center. She was sitting in front of the vat, which was in shape a parallelogram, and in size three feet six by two, and about eighteen inches deep; in this vat was the pulp. She had the frame in her hand, and by her side rested a pile of wet paper which had just been formed; but here they were not separated, the one from the other, by layers of flannel or any other substance.

"Having stirred the contents of the vat she simply dipped her frame into the pulp and collected as much as she wanted, and by a dexterous movement caused it to flow evenly over the silk surface of the frame. Allowing it to rest for a few minutes to give the water time to drain off, she added this newly-formed sheet to the wet pile by inverting the frame, and thus went on making sheet after sheet. On the top of the pile of wet sheets of paper a board is placed, and upon this a few large stones; thus a quantity of water is squeezed out from the newly-formed sheets; and the fact that these sheets do not adhere, the one to the other, must be explained by the great length of



CEILING PAPER. DESIGNED BY E. P. WARREN.

the fibre of Japanese paper and by the small amount of size used in its manufacture.

"A sufficient quantity of water having been pressed from the paper, the boy brings a plank of wood of about six feet in length and thirteen or fourteen inches in width, and then removes the boulder stones and the board from the newly-formed paper, then separating from the heap the uppermost sheet, and placing this on the plank he presses it down so that it adheres by its own moisture to the board on which it is placed, and so with a second and third sheet.

"This done he takes the board to the open air and leans it in a slanting direction against the side of the house. The

same operation is continued with other sheets and other planks till the whole pile is disposed of in this primitive manner. The paper being dry, it is simply pulled from the boards and arranged in bundles for the market."

The best variety of wall-paper is made either of *Bromsonetia* or *Edgeworthia* bark. For ordinary paper the colors are put on through stencil plates, the designs being wrought by skilled artists, who follow Nature with a fidelity worthy of imitation. For instance, a design of a water plant, thrown on a cream ground, shows the scraggly root as well as the stately leaves and delicate blossoms. A branch of cherry blossoms is like the one you may pluck from the tree anywhere, not in the least conventionalized.

A beautiful design is that of the *cucurbita lagenaria* or gourd plant, showing the vine, leaves and fruit; it is all done in a bold outline of white, on a greenish-gray rough surface, the fruit being flecked with gold.

Still another design shows the maple leaf in natural coloring; again, branches of the green and feathery bamboo are thrown on contrasting ground very effectively. *Chrysanthemums* with their many-shaped petals and gorgeous coloring are favorite flowers for handsome paper. Many of the printed patterns are more artistic than our own, and the quality of the paper superior and far more durable.

Tokio is the center of the leather-paper industry. Ordinary paper is made here as well, but the greater portion comes from Osaka. The leather papers are sent to market in all colors—plain, rough, simple and gorgeous, done in a design or beautifully ornamented in raised arabesques, flowers, shields, crests, etc. It was formerly manufactured in small sheets, but now is turned out in long pieces.

To the proprietors of the Yamaji Hekishi Shawan Paper Co. I am indebted for a very pleasant day and many kind attentions. I was shown through the entire factory and the process of manufacturing leather-paper thoroughly explained to me. This factory was established several years ago by the Imperial Government for the purpose of introducing French methods in the manufacturing of paper hangings.

Three years ago the Cabinet decided that the Government must abandon all commercial enterprises. Then the present proprietors bought the business. They still retain the same skilled workmen and trained artists that were originally in the service of the Government, thereby being enabled to turn out work equal to the Government standard.

In Japan the reader must remember everything is done in

a contrawise manner to that of any other country, consequently I saw the finished hangings and last processes first, but by the aid of Mr. Kobayishi Beika, part proprietor of the factory and partner in the firm of Messrs. Rottmann, Strome & Co., of Yokohama, London and New York, who speaks both English and Japanese perfectly, I was enabled to straighten out the tangled methods as follows:

Large sheets of mitsu mata, *Edgeworthia* papyripere, paper made from the bark of the wild mulberry tree, are used for the foundation of the handsomely-embossed paper. It is first moistened to make it pliable and then put on a block, whereon the pattern has been carved, and beaten until it takes the design from the wood. In the case of very highly-embossed paper there is

a padding put into the interstices on the back and this covered with another sheet and the beating repeated, after which it is put into racks and dried; then it takes a coat of sizing on each side and is again dried.

Now it is spread upon long tables and given a coat of shibu, made from the juice of the astringent persimmon, and thoroughly dried.

Next it is treated to a coat of pure lacquer; before this is dry sheets of tinfoil are laid over it, with pieces of flannel over this and then beaten hard with soft brushes. The men who do the beating are followed by others with small pieces of tinfoil to make good any places not covered and to smooth the joints.

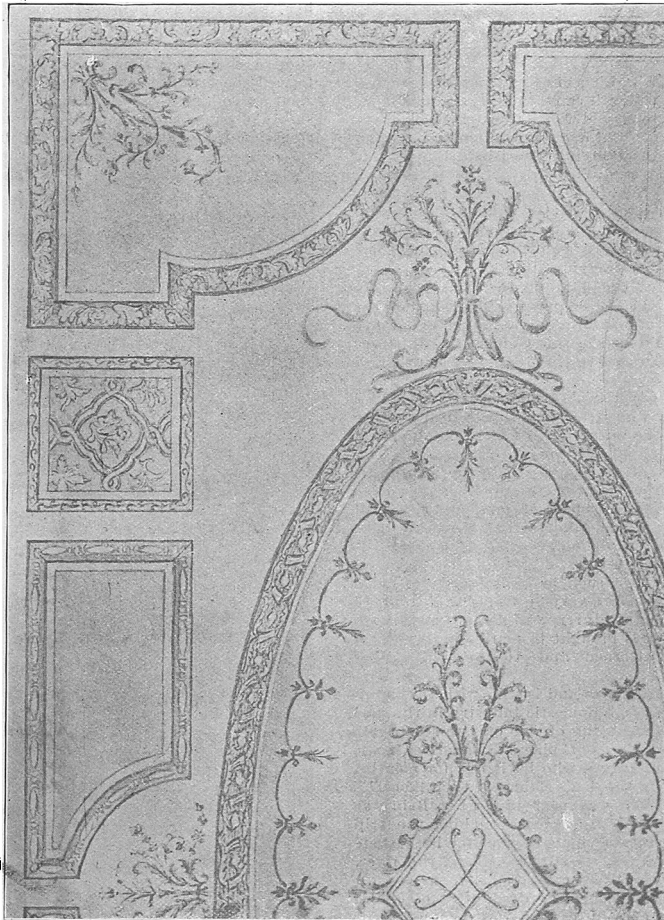
The next process is the drying of the lacquer. To accomplish this the rolls are hung in a ground room, the ceiling and walls of which are padded with straw, as well as the floor. This straw is kept saturated with water, and breeds a warm, damp atmosphere, which curiously enough dries the lacquer.

When perfectly dry another coat of lacquer is put on over the tinfoil and the drying process repeated. After this drying the lacquer turns a rich

color; the shade of burnished gold providing the atmosphere of the drying-room has been right, and the quality of the lacquer good.

The paper is now treated to a coat of wash called *sabi*, the literal translation of which is rust, which brings out all the fine lines in the design and the bright tints of the gold. Great care is taken in the use of this and the process of its manufacture is a trade secret.

The ground color is put on by means of brushes, and is dabbed in with rather hard knocks; other shades are thrown on by stencil plates, flowers and delicate traceries being done



PART OF AN ORNAMENTAL CEILING (SPECIAL WORK). DESIGNED BY ALDAM HEATON.

by hand in all the better grades. The coloring covers nearly all the gold; bits of it and the sabi are put on afterwards.

The difference between Japanese and French leather-paper is, that in France it is made in sheets of common paper, no lacquer being used, and the design put on by polychromatic printing. It is then embossed by machinery and varnished afterward.

In Japan it is all made by hand and embossed first, then colored. The use of lacquer makes it almost indestructible and able to defy all changes of temperature.

The Japanese paper is cheaper than the French by reason of the low price paid for labor in the Island Empire, besides the rolls are wider and longer. Owing to European influence the price of all kinds of labor is daily advancing, even though the wage-earners accomplish only about one-third the work in day that laborers do at home.

### DECORATING FRESHLY FINISHED WALLS.

By A. ASHMUN KELLY.

IT is the practice where the best results are sought, such as permanency of ownership, or occupation of the house indicates, to allow the usual plastered walls to remain a year or so without decorations of any kind, to allow them to dry out thoroughly and to give them opportunity to do all the cracking they may need to do in the event of settling of the building. A good job of plastering will crack very little if any from drying out, while a properly constructed house, on a good foundation, will do little if any settling. But good plaster work is a rarity. Rare indeed even in high-priced houses. Years ago a "hard finish" was put on even the walls of cheap houses. Good plaster was used. Water was frequently applied and the surface was rubbed with the trowel vigorously and long, the result being a flint-like, glazed surface that was calculated to cheer the decorator's heart. To day too much lime and too little water and rubbing are used. The result is seen in porous, lustreless, rotten walls, unfit for anything, even whitewash.

Our grandmothers used to wash the walls once or twice a year with soap or soda and water. Hence these hard-surfaced walls were known as "wash-walls." They, like the dodo, are now extinct.

Bad walls are the decorator's bane to-day. They are bad even when allowed time to dry out. Fresh, they are worse.

What shall be done with them? The decorator does not like to wait a whole year, nor the occupant of the house either,

before decorating those damp walls. If the work is done before they are dry, trouble is bound to ensue.

The "operation" houses, built in blocks, are papered, gorgeously, soon as the painter finishes. I went to see one, contemplating its rental. While speaking to the owner I noticed a corner of the handsome ceiling decoration slightly loose, and called his attention to it. He took hold of it, and down came decoration, white plaster and all! When paper is applied to undried plaster it is apt to pull the white coat off in drying.

Great improvement has been made in recent years in plaster for walls. There are several hard-drying wall plasters now on the market, similar to each other perhaps, and while they cost a trifle more than ordinary lime plaster, they are decidedly cheaper in the end. For instance, here are some qualities

claimed by its makers for one certain wall plaster: A non-conductor; non-absorbent; washable; best surface for paint, paper, fresco (?); hard, yet not metallic; not chip, crack, or break under carpenter's working; useful for repairing or patching; easily spread; sets rapidly; can be put equally well on any kind of surface; when finished does not look mottled or show stains; can be tinted any color.

This looks like an ideal plaster. But what shall we do with the ordinary plaster wall, not dry? Common sense answers, let them dry! But we cannot do this. At least we don't want to, which amounts to the same thing. Well, you assume consequences, and we will prescribe.

A wash of best hydraulic cement will answer, if its rather rough surface be no objection. Better still, I think, is a gypsum preparation, of which the market offers several. And of this "plastic" preparation much might be said to interest decorators, particularly amateurs.

A coat or two of such preparation would give a dry surface to decorate upon, while, being porous

itself, and favorable to union with the undry plaster under it, the latter has a fair chance to continue drying, and without detriment to its superincumbent coats.

A size of shellac varnish would be useful on a fresh wall. Ordinary liquid wood filler is often used for this purpose. A coat of boiled oil is preferred by many painters for a size. But these oily surfaced sizes are hardly adapted for wall-paper, unless cut on surface with sandpaper. For water colors a varnished or painted wall is always an ideal wall, because of the absence of suction. It is also desirable if its glossy surface be first "cut" with sandpaper, as already stated, or with soda



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